AMPEREX TRANSMITTING TUBE 211-H

FULLY INTERCHANGEABLE WITH AMPEREX HF-150

R.F. Power Amplifier, Oscillator, A.F. Power Amplifier, Modulator

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

A.F. Amplifier and Modulator—Class A

	Maximum Rating per Tube	Typical Operation One Tube	
A.C. Filament Voltage	—	10	10
D.C. Plate Voltage	1500	1200	1500
D.C. Grid Voltage	—	—70	—97
Peak A.F. Grid Voltage	—	65	92
D.C. Plate Current (ma.)	—	80	66
Plate Dissipation (watts)	100	—	—
Load Resistance (ohms)	—	7600	14500
Power Output (watts)	—	21	30
Distortion (% Second Harmonic)	—	3	2

A.F. Power Amplifier and Modulator—Class B

	Maximum Rating per Tube	Typical Operation Two Tubes	
A.C. Filament Voltage	—	10	10
D.C. Plate Voltage	1500	1250	1500
D.C. Grid Voltage	—	—90	—110
Load Resistance (ohms per tube)	—	1675	2050
Effective Load Resistance (ohms)	—	6700	8200
Zero Signal D.C. Plate Current (ma.)	—	50	50
Peak A.F. Grid to Grid Voltage	—	380	420
Max. Signal D.C. Plate Current (ma.)	210	400	400
Max. Signal Plate Input (watts)	315	500	600
Plate Dissipation (watts)	125	180	200
Max. Signal Driving Power (Approx.) (watts)	—	4.5	5
Max. Signal Plate Power Output (watts)	—	320	400

R.F. Power Amplifier—Class B—Telephony

(Carrier conditions for use with modulation factor of 1.0)

	Maximum Rating per Tube	Typical Operation One Tube	
A.C. Filament Voltage	—	10	10
D.C. Plate Voltage	1500	1250	1500
D.C. Grid Voltage	—	—85	—110
Peak R.F. Grid Voltage	—	105	120
D.C. Plate Current (ma.)	150	120	120
Plate Input (watts)	185	150	180
D.C. Grid Current (Approx.) (ma.)	—	.5	.2
Plate Dissipation (watts)	125	100	118
Driving Power at Peak Modulation (Approx.) (watts)	—	2.5	3.5
Plate Power Output (watts)	—	50	62.5
Frequency Limit for Above Operation (mc.)	30	—	—
F.C.C.Rating (for use in final stage of Broadcast Transmitters) (watts)	50	—	—

GENERAL CHARACTERISTICS

Filament Voltage	10-10.5
Filament Current (amps)	3.25
Amplification Factor	12.5
Grid to Plate Transconductance @ 100 ma.	4300 micromhos
Direct Interelectrode Capacitances:	
Grid to Plate	7.2 μμf
Grid to Filament	5.5 μμf
Plate to Filament	1.9 μμf

Plate Modulated R.F. Power Amplifier Class C—Telephony

(Carrier conditions for use with modulation factor of 1.0)

	Maximum Rating per Tube	Typical Operation One Tube	
A.C. Filament Voltage	—	10.5	10.5
D.C. Plate Voltage	1250	1000	1250
D.C. Grid Voltage	—400	—250	—300
Peak R.F. Grid Voltage	—	380	430
D.C. Plate Current (ma.)	175	170	166
Plate Input (watts)	220	170	207
D.C. Grid Current (Approx.) (ma.)	50	10	8
Plate Dissipation (watts)	85	55	59
Driving Power (Approx.) (watts)	—	3.5	3.5
Plate Power Output (watts)	—	115	148
Frequency Limit for Above Operation (mc.)	30	—	—
F.C.C. Rating (for use in final stage of Broadcast Transmitters) (watts)	125	—	—

R.F. Power Amplifier and Oscillator—Class C Telegraphy

	Maximum Rating per Tube	Typical Operation One Tube	
A.C. Filament Voltage	—	10	10
D.C. Plate Voltage	1500	1250	1500
D.C. Grid Voltage	—400	—250	—300
Peak R.F. Grid Voltage	—	385	440
D.C. Plate Current (ma.)	210	200	200
Plate Input (watts)	315	250	300
D.C. Grid Current (Approx.) (ma.)	50	10	10
Plate Dissipation (watts)	125	80	80
Driving Power (Approx.) (watts)	—	3.5	4
Plate Power Output (watts)	—	170	220
Frequency Limit for Above Operation (mc.)	30	30	30

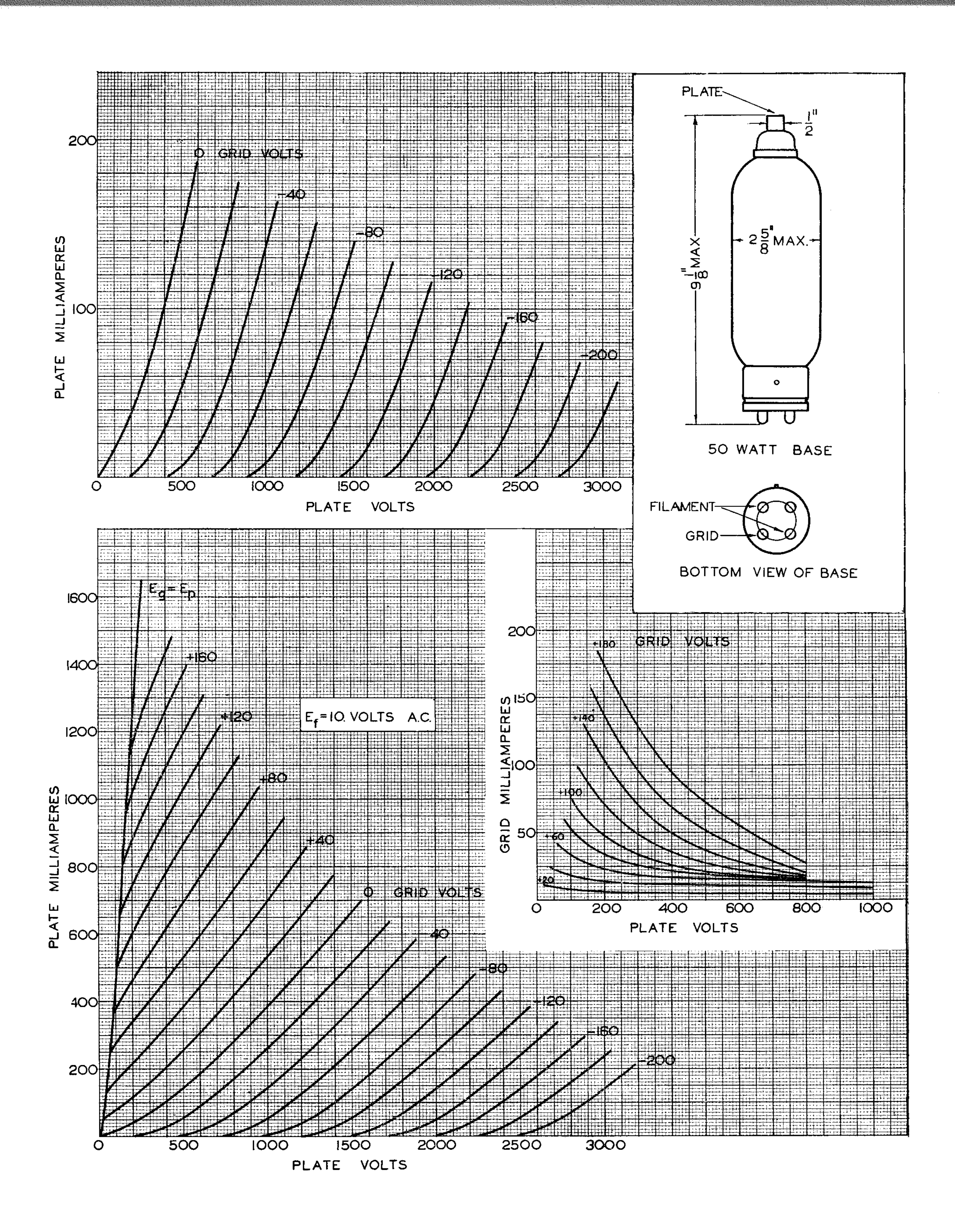


PLATE
1"/2
9 1/8" MAX
2 5/8" MAX.
50 WATT BASE
FILAMENT
GRID
BOTTOM VIEW OF BASE
0 GRID VOLTS
-40
-80
-120
-160
-200
PLATE MILLIAMPERES
PLATE VOLTS
Eg = Ep
+160
+120
+80
+40
Ef = 10. VOLTS A.C.
GRID MILLIAMPERES
+180
+140
+100
+60
+20